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n the days before computers, data analysis was difficult. With an exceptionally large amount of information, hand graphing could take hours and, of course, human error was inevitable. Hand graphing trends could be difficult, if not impossible, as anyone over the age of 25 can tell you. The graph had to be scaled correctly (which was a royal pain), graphed correctly (which was a major pain), and then analyzed correctly. Line and bar graphers were bad enough, but if you had to create a circle (pie) graph, you usually just curled up into a tight little ball and cried a lot.

Heaven help you if your data changed. You had to re-write your data sheet, replot your data points (if it was a pie graph, you just threw yourself out of the nearest window), and re-check all your work. It was a long and arduous process.

With the advent of the computer, data analysis became much easier. Computers calculated all your values and when graphics were added, the computer could automatically graph your data for you. If your information changed, it was just a matter of typing the new values into your chart and re-graphing the data. The program that was used to do all this was named after a paper used in the accounting business; it was called a spreadsheet.

The first well known spreadsheet program was Lotus 1-2-3. It was large, expensive, and did everything except the dishes. Then came Excel. It was more compact, faster, cheaper, and a

bit easier to use opening up the spreadsheet market to a wider variety of people. When MS Works and Clarisworks were released, the common person was introduced to the spreadsheet. Here were programs that were accessible (and affordable) to just about everyone and opened up the spreadsheet market to a whole new population. Now everyone could use a spreadsheet to help them with data analysis.

The only problem now was how the heck do you use the darned things?!? Spreadsheets have a large number of commands and features that are very helpful if you know how to use them. Books are available (take a look at the computer section of your local bookstore), courses are available, and even tapes are available (that infommercial on at 3 a.m.), but nothing beats getting down and dirty with the real thing which is why Davidson released "The Cruncher".

"The Cruncher" is part of Davidson's Cool Tools for Cool Kids line that also includes "Flying Colors" (an art program) and "Multimedia Workshop."   This line was designed to introduce kids to programs that were used frequently in the real world. Now, don't be fooled by the word kids.   "The Cruncher" is a fully functioning spreadsheet program that has a multitude of basic (sum, average, maximum, etc.) and advanced (trig, floor, log, tunc, etc.) functions. Don't expect Excel, but "The Cruncher" is a powerful introduction to the functioning of a spreadsheet.

The Manual
The manual is set up simply and is very easy to follow. It is written so that a child can read it and easily understand what is being explained. The type is relatively large and there are plenty of pictures to illustrate the manual's various points.

The manual is set up very logically and information is easy to find using the table of contents and the index. The explanations of the functions are concise without being scant. The manual explains the different functions of a spreadsheet admirably; everything form cell ranges to charting is in there.

The manual is a true hybrid document.   It is written for both the Mac and Windows versions and pleasantly, the manual has sections that cover both the Mac screens and the Windows screens. Kudos to Davidson for making the Mac users feel like wanted customers and not just those who are acknowledged on an addendum sheet stuck into the manual.

The appendix section covers topics from menu screens to explanations of the tutorials and projects. There is an extensive troubleshooting section which should cover just about any problem that may arise while using "The Cruncher". There is also an ample glossary and even a quick reference section (again formatted for both Windows and Mac).

"The Cruncher" starts with a set of six tutorials designed to introduce the user to the functioning of and tools used in a spreadsheet. Each tutorial teaches a skill that will be useful when working with a spreadsheet.

 The first two tutorials also have three special buttons on them. They are exit, restart, and show. "Exit" and "restart" are self explanatory. The "show" button shows the user the relationships between the cells (Cells are the small rectangular boxes in a spreadsheet) . This is a helpful feature in that it allows the child to make the connection between what is going on the screen and what the spreadsheet is doing to get it done. After the second tutorial, and throughout the rest of the program, a "show" button appears in the formula bar next to a calculated value. Pressing this button shows the user how the value was calculated. This is a wonderful tool for helping a user find out why a calculated value may be incorrect.

Tutorial 1: Fish Out of Water
Skills: Entering data in cells and observing how spreadsheets add cell contents.

Tutorial 2: Magic Square
Skills: Spreadsheet math, entering numbers, observing how spreadsheets add rows and columns.

Tutorial 3: Cruncher Candy
Skills: Entering numbers, entering and formatting text, entering formulas.

Tutorial 4: Help Wanted
Skills: Changing cell width, formatting cells (currency, date), point-and-click cell selection.

Tutorial 5: Making Cookies
Skills: Inserting columns, fill down.

Tutorial 6: Racing Slugs
Skills: Pasting functions, inserting and deleting rows.

Another feature shown by the tutorials is the use of the Notebook. The Notebook is like a word processor that is attached to your spreadsheet. It can hold data, notes, reports on the data, and   electronic stickers that you may want to use on your spreadsheet. As with any word processor, the Notebook has full cut, copy, and paste functions as well as a good selection of formatting selections.

The Projects
The projects are, by far, the best feature of this program. The projects are pre-formatted spreadsheets that allow the child to learn the full power of a spreadsheet without actually having to design one. The projects all have full explanations in their notebooks and allow the

user to track data that may interest them (baseball or basketball statistics), help them plan for a future purchase (a Walkman or a pet), or just learn the ins and outs of information management (a party planner, a trip planner, and a recipe converter). Out of these projects will grow the ideas for other things that can be done with a spreadsheet.

The Cruncher

Now the child has the tools for manipulating the data and the ideas for using the information, it is time to let them loose in the program itself.

The program, as stated before, is a full featured spreadsheet program. There are tools that are found in the most expensive programs but there are also some decidedly "kid inspired" features that make "The Cruncher" a great addition to any computer. They are electronic stickers and a "text to speech" function.

The stickers are a collection of images that can be attached to a spreadsheet to make it more colorful. That would be cool enough right there but Davidson took them a step further and the stickers animate when you click on them. What's more, you can also attach a pre-made sound to the sticker or create one of your own that will play during the animation. This is a clever idea and one that will definitely inspire the creativity of a child.

The "text to speech" function allows the user to have any text or numbers on the screen read to him/her. Unfortunately, we were unable to get this function to work. The program either froze or crashed every time the command was executed.

The program also has a graphing function. Although it does not have as many different types of graphs as the mainstream programs, the types featured are adequate for a child. The user can choose form bar, line, scatter, or circle graphs. Truthfully, there is not much use that a child would have for any other types of graphs so we consider this an advantage over other programs. It is less confusing.

Summary

This program is a must have for anyone interested in learning the ins and outs of spreadsheets. Any child will quickly learn the skills needed to master a spreadsheet and will formulate ideas on how to use spreadsheets to his/her advantage.

Pros

Great introduction to spreadsheets
Powerful spreadsheet function in a child friendly package
Notebook function
Great graphics and sound effects

Cons

Could not get text-to-speech to work

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